

**NINE-POINT CRITERIA ANALYSIS  
OF  
PROPOSED BUILDING STANDARDS  
OF THE  
CALIFORNIA STATE LANDS COMMISSION**

**CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2, CHAPTER 31F (MARINE  
TERMINALS)**

**1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.**

There are no other national or state building standards that address the inspection, design, analysis or mooring assessment for marine oil terminals. These proposed standards do not overlap or duplicate any other standard. They present a structural performance-based design methodology based on strain. Seismic demand is reduced for aged structures, based on the maximum amount of oil at risk. A mooring assessment is required, with an operational wind rose, and specific safety factors for the mooring lines and hard points on the structure. There is no overlap or duplication with structural standards. However, for the purposes of Divisions 10 and 11, which address mechanical and electrical equipment and electrical systems, the standards cite certain provisions of the National Electric Code (NEC). These NEC citations point out to the regulated community the salient provisions that apply to marine oil terminals and their appurtenances.

**2) The proposed building standards are within the parameters established by enabling legislation, and are not expressly within the exclusive jurisdiction of another agency.**

These standards were developed by the State Lands Commission (SLC), to comply with the mandate of the Lempert-Keene-Seastrand Oil Spill Response and Prevention Act of 1990 (The Act). Section 8755 of the Government Code reads in part:

"The administrator and the executive officer of the commission shall confer and propose, and the commission shall adopt rules, regulations, guidelines and commission leasing policies for reviewing the location, type, character, performance standards, size and operation of all existing and proposed marine terminals within the state, whether or not on lands leased from the commission, and all other marine facilities..."

This set of proposed standards is precisely what is mandated by the "Act" cited above.

**3) The public interest requires the adoption of the building standards.**

Based on commission staffs repeated inspections of marine oil terminals over the past 12 years, the public interest is vitally served by having these standards adopted. There is no regulation to repair structural damage, upgrade fire water systems, pipelines, pipeline supports, or perform a mooring assessment. In many cases the vessels are significantly larger than the original design capacity of the wharf or pier. Many of these terminals were built without reference to any standards. At the time they were built, the vessels that berthed at these terminals were substantially smaller than the vessels that they accommodate today. Several of these structures are inadequate, in terms of the berthing force, as these larger vessels impact the structure. In most cases, there is no maximum wind envelope, to limit operations or to provide maximum mooring loads that are within the limits of structural capacity. In terms of seismic vulnerability, with an average age of 50 years, many structures

are inadequate to meet today's seismic criteria. The intent of these standards is to reduce the seismic vulnerability of marine oil terminals to the same level as that of existing, adjacent refineries.

**4) The proposed building standards are not unreasonable, arbitrary, unfair, or capricious, in whole or in part.**

Commission staff has had extensive interaction with industry, and have utilized many of their suggestions in the drafting of these standards. As a result, the standards are not unreasonable, arbitrary, unfair or capricious. All affected parties have participated or at least been informed about these standards and their development. Two large workshops (80 to 100 attendees) were held during the development of these standards. At the conclusion of the public comment period, there were no technical issues, comments or statements with regard to their being unreasonable, arbitrary, unfair or capricious (in whole or part).

**5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.**

There is no cost to the public. Only oil terminal operators will have to comply, performing inspections and where deemed necessary, upgrading their facilities.

**6) The proposed building standards are not unnecessarily ambiguous or vague, in whole or in part.**

Commission staff has been very careful in the drafting of these standards to avoid ambiguity. Again, the industry and the affected parties have been extensively involved in the drafting of these standards. To the best of the knowledge of Commission staff, the standards are not ambiguous or vague (in whole or part).

**7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.**

There are no U.S. model codes, published standards or guidelines that specifically address construction, rehabilitation and maintenance for marine oil terminals. Whenever possible in the document, Commission staff have referenced applicable guidelines, recommended practice, federal regulations and model codes.

An internationally recognized body "Permanent International Association Navigation Congress" (PIANC) has included these seismic provisions in their recent text entitled "Seismic Design Guidelines for Port Structures", Working Group No. 34 of the Maritime Navigation Commission International Navigation Association, A. A. Balkema, 2001.

**8) The format of the proposed building standards is consistent with that adopted by the Commission.**

The text of the proposed Title 24, Part 2, Chapter 31F (Marine Terminals) is in the format of the California Building Code.

**9) The proposed building standards, if they promote fire and panic safety as determined by the State Fire Marshal, have the written approval of the State Fire Marshal.**

The California State Fire Marshal (SFM) has reviewed these proposed standards and has determined that they do not promote fire and panic safety. A copy of the SFM's

determination Memorandum, dated May 6, 2004, to the Executive Officer of the State Lands Commission is attached.